

SEQUENCE LISTING

<110> Loiler, Scott A.
Flotte, Terrance R.
Muzyczka, Nicholas
Atkinson, Mark

<120> IMPROVED rAAV VECTORS

<130> 36689.37

<140> 10/511,914
<141> 2004-10-18

<150> PCT/US03/12225
<151> 2003-04-17

<150> 60/373,419
<151> 2002-04-17

<160> 49

<170> PatentIn version 3.3

<210> 1
<211> 13
<212> PRT
<213> Homo sapiens

<400> 1

Ser His Leu Arg Lys Leu Arg Lys Arg Leu Leu Arg Asp
1 5 10

<210> 2
<211> 13
<212> PRT
<213> Homo sapiens

<400> 2

Ser His Leu Arg Lys Leu Arg Glu Arg Leu Leu Arg Asp
1 5 10

<210> 3
<211> 13
<212> PRT
<213> Pupaia glis

<400> 3

Ser His Leu Arg Lys Met Arg Lys Arg Leu Leu Arg Asp
1 5 10

<210> 4
<211> 13
<212> PRT
<213> Bos taurus

<400> 4

Ser His Leu Arg Lys Leu Pro Lys Arg Leu Leu Arg Asp
1 5 10

<210> 5
<211> 13
<212> PRT
<213> Homo sapiens

<400> 5

Ser His Leu Arg Lys Leu Arg Gln Arg Leu Leu Arg Asp
1 5 10

<210> 6
<211> 13
<212> PRT
<213> Canis familiaris

<400> 6

Ser His Met Arg Lys Leu Arg Lys Arg Val Leu Arg Asp
1 5 10

<210> 7
<211> 13
<212> PRT
<213> Rattus norvegicus

<400> 7

Ser His Leu Arg Lys Met Arg Lys Arg Leu Met Arg Asp
1 5 10

<210> 8
<211> 13
<212> PRT
<213> Mus musculus

<400> 8

Ser His Leu Arg Arg Leu Arg Arg Arg Leu Leu Arg Asp
1 5 10

<210> 9
<211> 13
<212> PRT
<213> Artificial

<220>
<223> Synthetic Peptide

<220>
<221> misc_feature
<222> (3)..(3)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> misc_feature

<222> (5)..(8)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> misc_feature
<222> (10)..(11)
<223> Xaa can be any naturally occurring amino acid

<400> 9

Ser His Xaa Arg Xaa Xaa Xaa Xaa Arg Xaa Xaa Arg Asp
1 5 10

<210> 10
<211> 13
<212> PRT
<213> Artificial

<220>
<223> Synthetic Peptide

<220>
<221> misc_feature
<222> (3)..(3)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> misc_feature
<222> (5)..(8)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> misc_feature
<222> (10)..(11)
<223> Xaa can be any naturally occurring amino acid

<400> 10

Ser His Xaa Arg Xaa Xaa Xaa Xaa Arg Xaa Xaa Arg Asp
1 5 10

<210> 11
<211> 10
<212> PRT
<213> Homo sapiens

<400> 11

Leu Arg Lys Leu Arg Lys Arg Leu Leu Arg
1 5 10

<210> 12
<211> 10
<212> PRT
<213> Homo sapiens

<400> 12

Leu Arg Lys Leu Arg Glu Arg Leu Leu Arg
1 5 10

<210> 13
<211> 10
<212> PRT
<213> Tupaia glis

<400> 13

Leu Arg Lys Met Arg Lys Arg Leu Leu Arg
1 5 10

<210> 14
<211> 10
<212> PRT
<213> Bos taurus

<400> 14

Leu Arg Lys Leu Pro Lys Arg Leu Leu Arg
1 5 10

<210> 15
<211> 10
<212> PRT
<213> Homo sapiens

<400> 15

Leu Arg Lys Leu Arg Gln Arg Leu Leu Arg
1 5 10

<210> 16
<211> 10
<212> PRT
<213> Canis familiaris

<400> 16

Met Arg Lys Leu Arg Lys Arg Val Leu Arg
1 5 10

<210> 17
<211> 10
<212> PRT
<213> Rattus norvegicus

<400> 17

Leu Arg Lys Met Arg Lys Arg Leu Met Arg
1 5 10

<210> 18
<211> 10
<212> PRT
<213> Mus musculus

<400> 18

Leu Arg Arg Leu Arg Arg Arg Leu Leu Arg
1 5 10

<210> 19
<211> 10
<212> PRT
<213> Artificial

<220>
<223> Synthetic Peptide

<220>
<221> misc_feature
<222> (1)..(1)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> misc_feature
<222> (3)..(6)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> misc_feature
<222> (8)..(9)
<223> Xaa can be any naturally occurring amino acid

<400> 19

Xaa Arg Xaa Xaa Xaa Xaa Arg Xaa Xaa Arg
1 5 10

<210> 20
<211> 10
<212> PRT
<213> Artificial

<220>
<223> Synthetic Peptide

<220>
<221> misc_feature
<222> (1)..(1)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> misc_feature
<222> (3)..(6)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> misc_feature
<222> (8)..(9)
<223> Xaa can be any naturally occurring amino acid

<400> 20

Xaa Arg Xaa Xaa Xaa Xaa Arg Xaa Xaa Arg
1 5 10

<210> 21
<211> 18
<212> PRT
<213> Artificial

<220>
<223> Synthetic Peptide

<400> 21

Asp Trp Leu Lys Ala Phe Tyr Asp Lys Val Ala Glu Asp Leu Asp Glu
1 5 10 15

Ala Phe

<210> 22
<211> 28
<212> PRT
<213> Artificial

<220>
<223> Synthetic Peptide

<400> 22

Leu Arg Lys Leu Arg Lys Arg Leu Leu Arg Asp Trp Leu Lys Ala Phe
1 5 10 15

Tyr Asp Lys Val Ala Glu Asp Leu Asp Glu Ala Phe
20 25

<210> 23
<211> 28
<212> PRT
<213> Artificial

<220>
<223> Synthetic Peptide

<400> 23

Leu Arg Lys Leu Arg Glu Arg Leu Leu Arg Asp Trp Leu Lys Ala Phe
1 5 10 15

Tyr Asp Lys Val Ala Glu Asp Leu Asp Glu Ala Phe
20 25

<210> 24
<211> 28
<212> PRT
<213> Artificial

<220>
<223> Synthetic Peptide

<400> 24

Leu Arg Lys Met Arg Lys Arg Leu Leu Arg Asp Trp Leu Lys Ala Phe
1 5 10 15

Tyr Asp Lys Val Ala Glu Asp Leu Asp Glu Ala Phe
20 25

<210> 25
<211> 28
<212> PRT
<213> Artificial

<220>
<223> Synthetic Peptide

<400> 25

Leu Arg Lys Leu Pro Lys Arg Leu Leu Arg Asp Trp Leu Lys Ala Phe
1 5 10 15

Tyr Asp Lys Val Ala Glu Asp Leu Asp Glu Ala Phe
20 25

<210> 26
<211> 28
<212> PRT
<213> Artificial

<220>
<223> Synthetic Peptide

<400> 26

Leu Arg Lys Leu Arg Gln Arg Leu Leu Arg Asp Trp Leu Lys Ala Phe
1 5 10 15

Tyr Asp Lys Val Ala Glu Asp Leu Asp Glu Ala Phe
20 25

<210> 27
<211> 28
<212> PRT
<213> Artificial

<220>
<223> Synthetic Peptide

<400> 27

Met Arg Lys Leu Arg Lys Arg Val Leu Arg Asp Trp Leu Lys Ala Phe
1 5 10 15

Tyr Asp Lys Val Ala Glu Asp Leu Asp Glu Ala Phe
20 25

<210> 28
<211> 28

<212> PRT
<213> Artificial

<220>
<223> Synthetic Peptide

<400> 28

Leu Arg Lys Met Arg Lys Arg Leu Met Arg Asp Trp Leu Lys Ala Phe
1 5 10 15

Tyr Asp Lys Val Ala Glu Asp Leu Asp Glu Ala Phe
20 25

<210> 29
<211> 28
<212> PRT
<213> Artificial

<220>
<223> Synthetic Peptide

<400> 29

Leu Arg Arg Leu Arg Arg Arg Leu Leu Arg Asp Trp Leu Lys Ala Phe
1 5 10 15

Tyr Asp Lys Val Ala Glu Asp Leu Asp Glu Ala Phe
20 25

<210> 30
<211> 28
<212> PRT
<213> Artificial

<220>
<223> Synthetic Peptide

<220>
<221> misc_feature
<222> (1)..(1)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> misc_feature
<222> (3)..(6)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> misc_feature
<222> (8)..(9)
<223> Xaa can be any naturally occurring amino acid

<400> 30

Xaa Arg Xaa Xaa Xaa Xaa Arg Xaa Xaa Arg Asp Trp Leu Lys Ala Phe
1 5 10 15

Tyr Asp Lys Val Ala Glu Asp Leu Asp Glu Ala Phe
20 25

<210> 31
<211> 28
<212> PRT
<213> Artificial

<220>
<223> Synthetic Peptide

<220>
<221> misc_feature
<222> (1)..(1)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> misc_feature
<222> (3)..(6)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> misc_feature
<222> (8)..(9)
<223> Xaa can be any naturally occurring amino acid

<400> 31

Xaa Arg Xaa Xaa Xaa Xaa Arg Xaa Xaa Arg Asp Trp Leu Lys Ala Phe
1 5 10 15

Tyr Asp Lys Val Ala Glu Asp Leu Asp Glu Ala Phe
20 25

<210> 32
<211> 5
<212> PRT
<213> Artificial

<220>
<223> Synthetic Peptide

<400> 32

Phe Val Phe Leu Ile
1 5

<210> 33
<211> 10
<212> PRT
<213> Artificial

<220>
<223> Synthetic Peptide

<400> 33

Lys Phe Asn Lys Pro Phe Val Phe Leu Ile
1 5 10

<210> 34
<211> 45
<212> DNA
<213> Artificial

<220>
<223> Synthetic Peptide

<400> 34
aggAACCTGT taAGACGCGG CCGACGCGTG CTCCGGAAA aaAGA

45

<210> 35
<211> 6
<212> PRT
<213> Artificial

<220>
<223> Synthetic Peptide

<400> 35

Asp Thr Tyr Arg Tyr Ile
1 5

<210> 36
<211> 9
<212> PRT
<213> Artificial

<220>
<223> Synthetic Peptide

<400> 36

Tyr Pro Tyr Asp Val Pro Asp Tyr Ala
1 5

<210> 37
<211> 6
<212> PRT
<213> Artificial

<220>
<223> Synthetic Peptide

<400> 37

Asp Thr Tyr Arg Tyr Ile
1 5

<210> 38
<211> 6
<212> PRT
<213> Artificial

<220>
<223> Synthetic Peptide

<400> 38

His His His His His His
1 5

<210> 39

<211> 5

<212> PRT

<213> Artificial

<220>

<223> Synthetic Peptide

<400> 39

Phe Val Phe Leu Ile
1 5

<210> 40

<211> 4

<212> PRT

<213> Artificial

<220>

<223> Synthetic Peptide

<400> 40

Phe Leu Ala Gly
1

<210> 41

<211> 7

<212> PRT

<213> Artificial

<220>

<223> Synthetic Peptide

<400> 41

Asp Tyr Lys Asp Asp Asp Asp
1 5

<210> 42

<211> 10

<212> PRT

<213> Artificial

<220>

<223> Synthetic Peptide

<400> 42

Lys Phe Asn Lys Pro Phe Val Phe Leu Ile
1 5 10

<210> 43

<211> 5

<212> PRT
<213> Artificial

<220>
<223> Synthetic Peptide

<400> 43

Phe Val Phe Leu Ile
1 5

<210> 44
<211> 10
<212> PRT
<213> Artificial

<220>
<223> Synthetic Peptide

<400> 44

Asp Tyr Lys Asp Asp Asp Asp Lys Tyr Lys
1 5 10

<210> 45
<211> 9
<212> PRT
<213> Artificial

<220>
<223> Synthetic Peptide

<400> 45

Tyr Pro Val Asp Val Pro Asp Tyr Ala
1 5

<210> 46
<211> 10
<212> PRT
<213> Artificial

<220>
<223> Synthetic Peptide

<400> 46

Lys Phe Asn Lys Pro Phe Val Phe Leu Ile
1 5 10

<210> 47
<211> 8
<212> PRT
<213> Artificial

<220>
<223> Synthetic Peptide

<220>

<221> misc_feature
<222> (1)..(8)
<223> Xaa can be any naturally occurring amino acid

<400> 47

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
1 5

<210> 48
<211> 10
<212> PRT
<213> Artificial

<220>
<223> Synthetic Peptide

<400> 48

Lys Phe Asn Lys Pro Phe Val Phe Leu Ile
1 5 10

<210> 49
<211> 7
<212> PRT
<213> Artificial

<220>
<223> Synthetic Peptide

<400> 49

Ile Glu Leu Leu Gln Ala Arg
1 5